# PERMANENT ROADS AIM OF EXPERTS

## Mixed Horse and Motor Traffic Destructive to Highways as at Present Constructed.

## NEED OF STANDARD TYPE FOR HIGHWAYS IS URGED

### Radical Changes Necessary to Cut Down Building and Up-Keep Cost.

That the solution of the vexed road problem lies in the building of a new class of main highways that will not go to pieces under the increasing volume of mixed horse and motor vehicle traffic is the belief of automobile and motor truck manufacturers who have turned their attention to this subject of late. It has been noted how, in their annual reports, state highway commissioners call attention to the rapid destruction of the improved roads, and the growing cost of keeping them in even passable condition. Cognizance has also been taken of the authorization by the legislatures of big fifty-year bond issues to pay for the construction of state highway systems, although as yet no state authorities have come forward with specifications for a type of moderate-cost road for which they claim a life of more than five to ten years before resurfacing will be required, even when repairs are made each year where holes develop.

**New Methods Necessary.**

Radical and immediate changes in road-building methods must be made if the country is to keep pace with the industrial, commercial and social needs of the people. Unless more durable road are built than the water-bound and bituminous macadam that are now the common standards of the best types of state highways, the burden of the cost of maintenance will become insupportable in a few years. France has just approved the spending of $50,000,000 during the next ten years for the tarring of 6,000 miles out of her 425,000 miles of famous highways. That country now spends $40,000,000 a year for road maintenance and $6,750,000 a year for repairs to 25,000 miles of national roads—that is, $270 a mile, notwithstanding cheap labor and probably the best system of roads in the world.

In view of this situation the commercial vehicle committee of the Automobile Chamber of Commerce, which represents ninety-five of the leading motor vehicle manufacturing companies of America, resolved at a meeting held in Cleveland, August 26:

"That we realize thoroughly the necessity of improved road conditions * * * and we believe it is advisable to adopt the construction that, after thorough investigation, will give the greatest permanency, first cost being of lesser importance."

**Lincoln Highway Approved.**

At a meeting held in New York September 3, the executive committee of the Automobile Chamber of Commerce indorsed this resolution and approved a recommendation of the good roads committee:

"That the Automobile Chamber of Commerce approve the plan and objects of the Lincoln Highway Association and render the association such assistance from time to time as may be properly feasible."

**Road Principles.**

The executive committee also adopted the following declaration of road principles recommended by the good roads committee at its meeting held in Detroit August 28:

(1) Highway construction is a scientific and engineering problem.

(2) Proper location, grading and drainage are first essentials of any good road.

(3) Highways should be of a character directly suited to the kinds and volume of traffic using them. It is uneconomical and a waste of time and money to build roads unsuited to the volume and character of traffic and of short durability.

(4) Road foundations, culverts, retaining walls and road base should have a durability equal to or exceeding the life of bonds issued to pay for the construction of the roads.

(5) When appropriations are made for road improvement suitable and sufficient provision should be made for maintenance of the improved roads during the life of the bonds issued to pay for them.

(6) Volume of traffic and kinds, speed and weights, with loads of vehicles using the roads, should be ascertained before beginning the construction of a state road by taking a traffic census, and the rate of increase and change of character should be calculated well into the future.

(7) Construction or reconstruction of all main through roads between important trade centers, state capitals and centers of a large population (50,000 and over) not more than 100 miles apart should be of permanent character.

(8) Roads which sustain a considerable volume of mixed horse and motor vehicle traffic should have a surface that will not ravel under such traffic, that will not become dusty by wear and the effects of weather, that will be impervious to water and will not be loosened by frost.

(9) Until such time as traffic over subsidiary roads and relatively little-used country roads warrants improvements with permanent construction they should be maintained in serviceable condition for the traffic using them by relatively inexpensive methods such as dragging, or by the application of gravel, sand, clay, shells, etc.

(10) Bridges and culverts should be of sufficient strength to carry the traffic that can be sustained safely by the roads of which they form a part. Pending the rebuilding or strengthening of bridges to such standard, signs announcing their safe capacity should be displayed prominently upon them.

(11) Traffic development is an economic necessity, and the capacity of roads and bridges should be adequate to the industrial and commercial needs of the communities they serve.

# MOTOR TRUCKS WILL REDUCE LIVING COST

### Cheaper Farm Products for City Dwellers, Is Claim.

"The most interesting feature of this fast approaching era of improved roads and the commercial motor is their certain effect in the cheapening of the cost of farm produce to dwellers in the cities," says C. W. Martin, a motor truck tire expert.

"The delays and cost of transportation have prevented the farmer living some distance from a distributing point from marketing his produce profitably. With soft roads and horse-drawn wagons five miles is the average limit beyond which the green goods of a city's supply cannot be drawn. With good roads and mechanical transportation all the country within thirty miles or more is available for truck gardens. Fruit and vegetables can be profitably produced over a territory many times larger than when hauled by horses.

**To Compete With Railroads.**

"An illustration of how firmly mechanical transportation has become established in this country," says Mr. Martin, "is given in the action taken recently by a motor truck club in the west. The club intends to compete with the railroads by operating a fleet of motor trucks. With commercial vehicles it is estimated that better service can be given at a minimum cost.

"Better roads and commercial motors will within the next few years make a great improvement in conditions, for altogether they will cut down the average cost of hauling farm produce to less than half of what it is today."

## MUCH INTEREST IN HIGHWAY.

### Lincoln Memorial Project Indorsed by Organizations and Individuals.

Nation-wide interest is expressed in the Lincoln highway, according to a report just issued by the national headquarters in Detroit. The highway project has received the indorsements of leading business and commercial organizations, boards of trade, automobile and other clubs, United States senators and representatives, railroad officials, bankers and citizens generally, including the clergy. All appear to be enthusiastic for the obtaining of this 3,000-mile highway from New York to San Francisco as a memorial to Abraham Lincoln.

The board of directors of the Automobile Chamber of Commerce of New York, one of the largest organizations of its kind in this country, has adopted resolutions approving the plan and objects of the highway association, and has promised to render such assistance from time to time as may properly be feasible.

The Pennsylvania Motor Federation, which met recently in convention at Harrisburg, Pa., has also indorsed the project. The recent convention was called for the purpose of emphasizing the fifty-million-dollar-bond issue referendum, which is to be decided by the voters of the Keystone state next month at the polls.

**Proper Care of Manifold.**

In case the addition of a warm air intake to the carburetor or the installation of a new instrument with a hot water jacket raises the temperature of the intake so that the manifold is at a perceptibly higher temperature than the air under the hood, it is advisable to wrap the manifold with asbestos. This will prevent the escape of the heat. Braided asbestos cord is best, and it should be wrapped tightly around the manifold. A coat of varnish over it will give the job a neat appearance and prevent the fraying and disintegration of the cord through vibration.

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**Reliability Tour Data.**

A comparison of reliability tours, speed contest and hill-climbing statistics shows that from 1906 to 1912, inclusive, there were 248 reliability tours held, to 215 speed contests and 109 hill climbs. The average audience at speed contests was 35,000, and at hill climbs 25,500. A comparison of the average number of entries shows thirty-nine for reliability tours, thirty-two for hill climbs and seventeen for speed contests.

# PLAN AUTO SHOW IN JANUARY


OFFICERS OF WASHINGTON AUTOMOBILE DEALERS' ASSOCIATION.

Top, left—T. Oliver Probey, president. Top, right—Charles W. Semmes, vice president.

Bottom, left—R. Bruce Emerson, secretary. Bottom, right—Arthur Foraker, treasurer.

One of the important events in local automobile circles was the election of officers and board of directors of the Washington Automobile Dealers' Association for the ensuing year. Following the election, plans were arranged and dates announced for the annual automobile show to be held in Convention Hall from January 19 to 24, inclusive. These dates are about two weeks earlier than usual, and the reason is due to the fact that the local show will follow immediately after the Philadelphia exhibition.

The annual auto show in New York city will be held from January 3 to 10, inclusive. The Philadelphia exhibition will run from January 10 to 17, with the local show opening the Monday following the closing of the Philadelphia show. The Chicago show will be held immediately after the Washington show, the dates being from January 24 to 31. The hall has been contracted for and the committees are now going ahead making arrangements for the coming exhibition.

There will be but two national shows this year, one in New York, which will take care of the eastern circuit, and the other one in the Windy city, which provides for the western section of the country. Heretofore it has been customary to hold national shows in Boston and Philadelphia, but these have been eliminated from the national show circuit. Exhibitions will be held just the same, however, but this year under local management.

The new officers and board of directors of the Washington Automobile Dealers' Association are as follows: President, T. Oliver Probey; vice president, Charles W. Semmes; secretary, R. Bruce Emerson, and treasurer, Arthur Foraker; board of directors, T. Oliver Probey, Charles W. Semmes, R. Bruce Emerson, Arthur Foraker, J. H. Johnson, J. Harry Miller, E. A. Garlock, F. C. Sibbald and Irving J. Henderson. A subcommittee, composed of President Probey, Vice President Semmes and Secretary Emerson, was appointed to confer with local automobile dealers not members of the association with a view to securing their membership and co-operation in the coming exhibition.

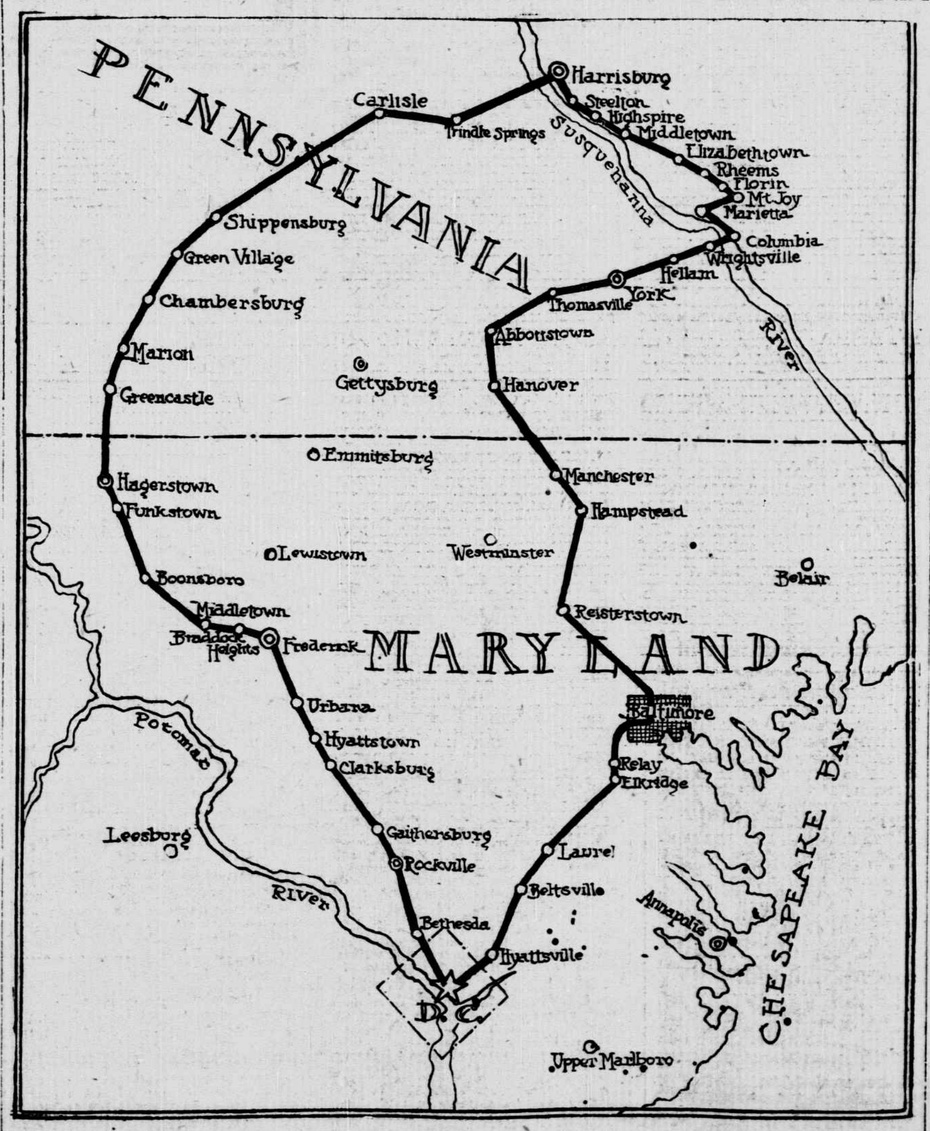
### Don't Neglect Speedometer.

Just because the speedometer drive is subjected to little or no stress is no reason why it should be neglected. On the contrary, it should be inspected with care, to see that it is in order, not only to insure accurate reading of the speed, but to prevent possible accidents through a part working loose. A narrow escape from a bad accident recently showed one motorist the advisability of attention to the speedometer connection. The car suddenly refused to turn to the right, and on investigation it was found that the bracket carrying the driving pinion had become loose and had wedged in between the steering arm and pivot. All bolts and screws on the bracket should be gone over at least once a month, and always after a hard drive. The gear on the wheel should also be inspected, and the wheel jacked up and turned by hand to see that the pinion and gear mesh correctly.

### Dimming Headlights.

Among the possibilities in connection with the very desirable dimming of searchlights when running through traffic, one which has not been exploited is that of shifting the flame out of focus for the time being, or, what amounts to the same thing, shifting the lens or reflector. In lamps which are provided with lenses in front of the frame, the tilting of the lens through a small angle will invariably distort the rays sufficiently to check the projection of the long-distance beam, while in lamps not embodying a lens in front a tilting of the central portion of the reflector should accomplish the same thing. To provide for such an arrangement would, of course, entail an alteration in the structure of the lamp, which may make the plan objectionable to most people.

# AUTO ROUTE THROUGH MARYLAND AND PENNSYLVANIA










# LEFT-HAND CONTROL THE PRACTICAL ONE

### Auto Designer Gives His Reasons for Making Claim. Cites Traffic Rules.

"If in the early days of automobile building the majority of makers had designed their cars with left-hand control they undoubtedly would have been accepted without comment, and right-hand drive would never have been popular," is the opinion of a prominent designer of motor cars. "But all followed the custom common with the horse-drawn vehicle. The driver's seat was located to the right almost without exception.

"Learning to drive a car in this position and not being offered a better control for some years at least, it naturally followed that the right-hand drive came to be considered the best, and, in fact, at that period of promiscuous driving previous to the strict regulation of traffic in our cities either side was about equally satisfactory. Being used to sitting on the right-hand side, it was only natural that the automobile driver should prefer to continue that custom.

"As soon as the law in most cities prescribed that all vehicles keep strictly to the right, turn square corners and stop on the right-hand side of the street the need of something different in the way of control was felt. Nearly every one has experienced the disagreeable condition of stopping at the right-hand curb, possibly in the rain, and having to get out on the left in the rain and mud. At such times the disadvantage of the old-style control was forced home.

**Claim It Is Dangerous.**

"It has been held as an argument that it would be dangerous to sit on the left side, as one could not see to stop at the curb or to cut in close to a country ditch in passing an approaching vehicle. Previous to traffic regulations no difficulty was experienced in driving up to the left curb, nor has it ever been held dangerous to cut in close to the left-hand ditch when passing a vehicle going in the same direction in the country. And how much more safe it is to be on the left-hand side of your car and be able to see around the vehicle to be passed when one is forced over on the left side of the road. The entire responsibility rests with the driver of the car about to pass the one ahead and going the same way, so he certainly needs the clearest vision he can get.

"In meeting another vehicle both drivers face each other and naturally can pass with greater safety and a surety of not crowding. The danger always lies more with the vehicle to be passed than from the side of the road.

"Again, perhaps the most difficult condition in driving is the making of a left-hand turn in heavy traffic. To make a right-hand turn one has only to edge over toward the curb and whip around the corner when the cross street is reached. But a turn the other way is altogether different. There is probably a stream of traffic going in the opposite direction on the other side of the street, and cars coming up behind which immediately try to pass to the left the moment one slows down to make a left turn. How simple it becomes when sitting on the left-hand side of the car; one can glance back to note the conditions behind and signal both those in the rear as well as those approaching, making the turn without danger and without loss of time. By working in close to the curb no one can crowd past when making a right-hand turn, but crowding is always a possibility when turning to the left.

**Left-Hand Drive Advantages.**

"It has been stated that the driver on the left cannot open the tonneau door, and this is true with a closed car if the windows back of the driver are closed, but usually the driver of a limousine sits alone, and he can easily slide over and open the door, while with an open body it is really easier to reach the right-hand tonneau door from the left seat by reaching over the seat back than when sitting on the side toward the curb.

"To sum up, the chief advantages of the left-hand drive are:

"First, the occupant of the front seat can step out on the curb or the street, as he may elect.

Second, better position in turning in traffic.

"Third, driver can see ahead when passing a vehicle going in the same direction.

"Fourth, better position when meeting and passing a vehicle."

San Francisco is certainly having a hard time getting the liberty bell for exhibition purposes. Perhaps the old bell is controlled by a ring.—New Orleans Picayune.